thor introduces fifty-seven practical tests for their experimental demonstration. Some of these experiments are familiar to every student of plant physiology, while others are new, and in many cases quite novel. Some of them are to be performed in the laboratory, while others take the student out into the fields and forests.

The ninth chapter, on the origin of new forms, is again a philosophical presentation, including a summary discussion of the law of evolution, stability and plasticity, constant and inconstant forms, origin by adaptation, origin by variation, origin by mutation, natural selection, isolation, polygenesis, etc. Several instructive pages are given to Darwin and his predecessors and followers.

The remaining chapters include methods of studying vegetation, the plant formation, aggregation and migration, competition and ecesis, invasion and succession, alternation and succession. Even in these chapters some experimental work is suggested, so that the student will not depend wholly upon observation and camera-pictures for his conclusions! It is safe to say that the student who learns his ecology in the way it is presented in this book will not do as much guessing at his facts, and drawing of inferences from landscape photographs, as has been the habit of some of the "ecologists" of the immediate past.

CHARLES E. BESSEY
THE UNIVERSITY OF NEBRASKA

SCIENTIFIC JOURNALS AND ARTICLES

The Journal of Comparative Neurology and Psychology for September contains two articles on animal behavior. Dr. C. H. Turner writes on "The Homing of Ants: An Experimental Study of Ant Behavior," concluding from an extensive series of field and laboratory experiments that ants find their way to and from the nest neither by tropisms nor by a homing instinct, but that they learn their way by experience. The elements which enter into this experience were subjected to experimental analysis. The second paper is by Dr. E. H. Harper, on "The Behavior of the Phantom Larvæ of *Corethra plumicornis* Fabricius." These larvæ have a very characteristic mode of locomotion in the water. They conform neither to the conventional mode of orientation laid down in the tropism scheme nor to the trial and error type of reaction, but rather to a unique type of reaction system of the larva.

THE last number of *Symons's Meteorological Magazine* contains the following note: "The five hundredth number of *Symons's Meteorological Magazine* is now before our readers, a fact of no little interest when the smallness of the public to which such a journal appeals is taken into account. When Mr. Symons produced No. 1 in February, 1866, he had already issued a "monthly rain circular," as a supplement to "British Rainfall" for several years, so that a greater antiquity might plausibly be claimed for the magazine than the numeral implies. The magazine, though small, has grown, and is not, we trust, incapable of further growth without departing from the original lines on which it was planned. As an independent organ of opinion in meteorological matters, it has, we believe, been of use in the past, and we hope that this usefulness will continue. We heartily thank the many friends who have helped us hitherto, and we look forward with confidence to a wider circle of readers.

DISCUSSION AND CORRESPONDENCE

THE PARASITISM OF NEOCOSMOSPORA

IN SCIENCE for September 13, 1907, Dr. Erwin F. Smith, of the Bureau of Plant Industry, U. S. Department of Agriculture, makes certain criticisms on work which the writer published some time ago in a bulletin of the Missouri Agricultural Experiment Station and in a note in SCIENCE.

My purpose in writing the papers mentioned was to record in permanent form observations which I had made in course of a study of the ginseng fungus. I submitted some conclusions which it seemed proper to draw, because there has been more or less disagreement on the parasitism of these fungi among mycologists.